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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,289	01/26/2004	Tetsuya Shirogane	16869N-103900US	2560
20350 7590 07/31/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER MORAN, RANDAL D	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 07/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/765,289	Applicant(s) SHIROGANE, TETSUYA	
	Examiner Randal D. Moran	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16,20-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 and 20-22 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-16, 20-22 are pending in this application.
2. This action is a response to amendment filed 7/6/2007.
3. Below, Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully each reference in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

### ***Claim Objections***

1. The objections to **Claims 1, 6, and 7** for lack of antecedent basis are withdrawn in view of amendment filed 7/6/2007.

### ***Claim Rejections - 35 USC § 112***

1. The rejections of **Claims 1-9, 16, and 22** under 35 USC 112 are withdrawn in view of amendment filed 7/6/2007.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-16 and 20-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Grosner et al. (US 2004/0044744)**, hereafter "Grosner" in view of **Davis et al. (US 6,088,450)**, hereafter "Davis".

3. Considering **Claim 1, 10, and 22**, Grosner discloses a storage apparatus for processing a command transmitted by a host computer connected to said storage apparatus by a network, said storage apparatus comprising: a storage unit for storing data to be processed in accordance with said command; a memory for holding an access management table for storing first information on identification of said host computer; and a second determination means for carrying out a second determination process on the first information transmitted by said host computer in response to the request issued by said request means

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and determining if the first information indicates the login request should be approved by examination of said access management table to produce a determination result; wherein a decision as to whether or not to approve the login request is made in accordance with the determination result output by said second determination means (abstract, [0017]-[0024], [0074]-[0081], [0213]-[0216], as provided by the applicant in petition to make special on 7/5/2005).

Grosner does not disclose a first determination means for carrying out a first determination process and determining whether or not a frame of a login request transmitted by said host computer includes second information on identification of said host computer; a request means for transmitting a request to a source address specified in the frame of the login request in order to request said host computer to transmit the first information on identification of said host computer in a case where the determination result output by said first determination means indicates that the frame of the login request does not include the desired second information.

Davis does disclose a first determination means for carrying out a first determination process and determining whether or not a frame of a login request transmitted by said host computer includes second information on identification of said host computer (Fig. 5- item 400-410, column 6- lines 13-25, the security device would request a password (first information) and upon receiving the

password, no second information is available); a request means for transmitting a request to a source address specified in the frame of the login request (Fig. 5- item 415, column 6- lines 26-29) in order to request said host computer to transmit the first information on identification of said host computer in a case where the determination result output by said first determination means indicates that the frame of the login request does not include the desired second information (Fig. 5- item 415-435, column 6- lines 29-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grosner by a challenge-response protocol for authentication as taught by Davis in order to increase the security of the authentication process. A challenge response protocol mitigates the likelihood of unauthorized use of an electronic device through periodic challenge/response messages (Davis- column 1- lines 24-29). The challenge-response type of authentication is suggested in Grosner, though not taught in detail ([0264], [0459]).

4. Considering **Claim 20**, Grosner discloses a command-processing method for carrying out a communication between a first apparatus having an iSCSI initiator and a second apparatus having an iSCSI target through an IP network, said command-processing method comprising: receiving a frame of a login request made by said first apparatus in said second apparatus; checking whether or not

an access made by said first apparatus is to be permitted by examination of said second predetermined information transmitted by said first apparatus to said second apparatus; and processing a command transmitted by said first apparatus to said second apparatus in said iSCSI target of said second apparatus in a case where a result of checking indicates that an access made by said first apparatus as an access to said second (abstract, [0017]-[0024], [0074]-[0081], [0213]-[0216], as provided by the applicant in petition to make special on 7/5/2005).

Grosner does not disclose checking whether or not said frame includes first predetermined information for identifying said first apparatus; issuing a request from said second apparatus for acquisition of second predetermined information for identifying said first apparatus from said first apparatus in a case where said frame does not include said first predetermined information.

Davis does disclose checking whether or not said frame includes first predetermined information for identifying said first apparatus (Fig. 5- item 400-410, column 6- lines 13-25, the security device would request a password (second information) and upon receiving the password, no second information is available); issuing a request from said second apparatus for acquisition of second predetermined information for identifying said first apparatus from said

first apparatus in a case where said frame does not include said first predetermined information (Fig. 5- item 415-435, column 6- lines 26-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grosner by a challenge-response protocol for authentication into a storage unit as taught by Davis in order to increase the security of the authentication process. A challenge response protocol mitigates the likelihood of unauthorized use of an electronic device through periodic challenge/response messages (Davis- column 1- lines 24-29). The challenge-response type of authentication is suggested in Grosner, though not taught in detail (Grosner- [0264], [0459]).

5. Considering **Claim 2**, the combination of Grosner and Davis discloses an access is made to said storage unit by adoption of an iSCSI protocol (Grosner- Fig. 8- item 804, [0818] lines 7-10).
6. Considering **Claim 3 and 11**, the combination of Grosner and Davis discloses the first information stored in said access management table is an MAC address of an interface with an IP network through which said host computer is connected to said storage apparatus and an IP address is used as the second information (Grossner- [0459]).

7. Considering **Claims 4, 14, and 21**, the combination of Grosner and Davis discloses storage apparatus further having an SNMP manager for monitoring an apparatus connected to said IP network, and wherein said SNMP manager transmits a frame, which is used for requesting said host computer to transmit the first information, as an SNMP request for requesting said host computer to transmit an MIB of an interface related to said host computer (Grossner- Fig. 33, [0024], [0092] lines 19-20, [0575]).
8. Considering **Claim 5**, the combination of Grosner and Davis discloses a console used for changing a content of said access management table (Grossner- [0132], [0428]-[0429], changing the configuration of the IP subnet masks with change the contents that are added to the table, Grossner- [0541], Fig. 32, [0582], [0583])).
9. Considering **Claims 6 and 13**, the combination of Grosner and Davis discloses if the determination result produced by said second determination means indicates that the first information for identifying said host computer is not stored in said access management table, a content of said login request is stored in said memory as log data (Grossner- [0512], [0518]-[0536]).
10. Considering **Claim 7**, the combination of Grosner and Davis discloses if the determination result produced by said second determination means indicates that the first information for identifying said host computer has been stored in said

access management table (Grossner- [0459]- lines 1-6), a source IP address of the login request is stored in said access management table, being associated with said information for identifying said host computer (Grossner- [0459] lines 6-12).

11. Considering **Claim 8**, the combination of Grosner and Davis discloses access management table is used for cataloging a MAC address and an identification code for identifying a logical unit (LU) accessible to a host computer having an IP-network interface identified by the MAC address (Grossner- [0188], [0189]); and prior to processing of a command received from said host computer, an access requested by the command is examined to determine whether or not the access is an access to an accessible logical unit and the command is processed only if the access is found out to be an access to an accessible logical unit (Grossner- [0208],[0209]).
12. Considering **Claim 9**, the combination of Grosner and Davis discloses access management table includes information comprising an IP address assigned to a host computer having an IP-network interface identified by a MAC address as an address associated with the MAC address (Grossner- [0459]).
13. Considering **Claim 12**, the combination of Grosner and Davis discloses preparing a table, which is used for cataloging first information for identifying an external

apparatus allowed to make accesses to said storage apparatus (Grossner- [0457]); wherein, in said second determination process, first information acquired from an external apparatus is checked by referencing said table in determination of whether or not an access permit should be given to said external apparatus (Grossner- [0457], [0459]).

14. Considering **Claim 15**, the combination of Grosner and Davis discloses a MAC address is obtained from said external apparatus by adoption of a protocol based on an iSCSI text mode negotiation (Grossner- [0090]- lines 6-13, [0459]).
15. Considering **Claim 16**, the combination of Grosner and Davis discloses defining a plurality of logical units (LUs) in said storage apparatus (Grossner- [0455]); preparing an access management table for storing a MAC address and an identification code for identifying one of said logical units, wherein the identifiable logic unit is accessible to an external apparatus having an IP-network interface identified by said stored MAC address (Grossner- [0459]); and determining whether or not an access requested by a command transmitted by an external apparatus is an access to a specific one of said logical units, having an identification code cataloged in advance in said access management table (Grossner- [0457], [0458]), in a third determination process after said second determination process; wherein said command is processed if a result of said third determination process indicates that said access requested by said

command is an access to said specific accessible logical unit (Grossner- [0457], [0458] accessing the webpage would be executing the command).

### ***Response to Arguments***

1. Applicant's arguments filed 7/6/2007 have been fully considered but they are not persuasive.
2. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Grossner does suggest that a client is required to log on to a server using a simple password authentication or a more secure cryptographic challenge ([0264]). So while not going into detail of the specific types of challenges, one of ordinary skill in the art with the knowledge of Davis would be motivated to combine the two in order to increase the security of the authentication process. A challenge response protocol mitigates the likelihood of unauthorized use of an electronic device through periodic challenge/response messages (Davis- column 1- lines 24-29).

3. In response to applicant's argument that there is no reasonable expectation of success, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

4. In response to the applicant's argument that Grossner does not teach all of the claimed limitations. Examiner acknowledges that the cited reference does not disclose all the limitations in the claims. However, Grossner in view of Davis does disclose all the limitations recited in the claims. Reasons and motivation for combining the two references is given above.

### ***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randal D. Moran whose telephone number is 571-270-1255. The examiner can normally be reached on M-F: 7:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Randal D. Moran  
/RDM/

7/23/2007



KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100